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PROVISIONAL PATENT APPLICATION

TITLE: **INTEGRATED AUTOMATED AND LIVE ELECTRONIC CUSTOMER
SERVICE APPLICATION AND METHOD**

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OFFICE OF THE INVENTION

[0001] The present invention relates to electronic customer support. In particular, but not by way of limitation, the present invention relates to systems and methods for providing interactive, online customer support.

BACKGROUND OF THE INVENTION

[0002] Companies have identified tremendous economies in moving entire business processes and transactions to the Web. For example, the average cost of a live customer service interaction online is around \$4.00, and an automated interaction is only \$0.25-- compared with an average of more than \$15.00 for a traditional phone-based customer service interaction. Thus, substantial savings can be realized by moving customers to automated online interaction. However, customers must adopt this automated interaction as a primary source of support for companies to realize these cost savings.

Unfortunately, present automated interaction systems are rigid and generally unacceptable to most customers. Customers tend not to use these automated interaction systems, and if given no other customer support options, they tend to abandon transactions that they would otherwise complete. In light of the problems with present online customer support, a system and method are needed to provide companies with an acceptable way to attract and service customers.

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SUMMARY OF THE INVENTION

[0003] One embodiment of the present invention provides for automated online customer support integrated with a live customer support infrastructure. For example, the present invention can place an automated character on a Web site to proactively engage online traffic and gather information. The automated character can respond with scripted answers to many predictable situations that would otherwise require live agent interaction. Behind the automated character and the associated automated help engine, the present invention can include an integrated, scalable live help infrastructure. A customer can escalate from the automated character to a live agent at any point by requesting a live agent, or the automated character can automatically request a live agent to interact with the customer.

[0004] In one embodiment, the present invention is distributed across a host server and a client server. The host server is responsible for generating and controlling the automated character and the client server is responsible for serving up the data associated with the client's Web site.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] Various objects and advantages and a more complete understanding of the present invention are apparent and more readily appreciated by reference to the following Detailed Description and to the appended claims when taken in conjunction with the accompanying Drawings wherein:

FIGURE 1 illustrates one implementation of the present invention;

FIGURE 2 illustrates the content distribution responsibilities of the present invention;

FIGURE 3 illustrates the configuration of the automated character;

FIGURE 4 illustrates a sequence diagram of a transaction involving the automated character;

FIGURE 5 illustrates a sequence diagram of another transaction involving the automated character;

FIGURE 6 illustrates an example of social XML (SoXML) used to program the automated character;

FIGURES 7-10 illustrate the method of casting the automated character;

FIGURE 11 illustrates another embodiment of the present invention; and

FIGURE 12 illustrates an example of a knowledge transfer.

DETAILED DESCRIPTION

[0006] Although the present invention is open to various modifications and alternative constructions, a preferred exemplary embodiment that is shown in the drawings is described herein in detail. It is to be understood, however, that there is no intention to limit the invention to the particular forms disclosed. One skilled in the art can recognize that there are numerous modifications, equivalents and alternative constructions that fall within the spirit and scope of the invention as expressed in the claims.

[0007] One embodiment of the present invention provides for automated online customer support integrated with a live customer support infrastructure. For example, the present invention can place an automated character on a Web site to proactively engage online traffic and gather information. The automated character can respond with scripted answers to many predictable situations that would otherwise require live agent interaction. Behind the automated character and the associated automated help engine, the present invention can include an integrated, scalable live help infrastructure. A customer can escalate from the automated character to a live agent at any point by requesting a live agent, or the automated character can automatically request a live agent to interact with the customer.

[0008] A more detailed explanation of the system, its components, and its method of operation are described in the following appendices A-VV (attached), which are incorporated herein by reference:

Appendix A entitled *Finali netSage Platform 4.0, Product Overview*;

Appendix B entitled *Sage Advice*;

Appendix C entitled *SageTalk Overview*;

Appendix D entitled *Design Notes on Data Management (teaching the CRM netSage to 'remember')*;

Appendix E entitled *Functional Architecture, Finali netSage Product--Version 4.0*;

Appendix F entitled *Design Notes on SoXML (Social XML; a social interaction meta-language)*;

Appendix G entitled *Appropriateness Data Maintenance Tool (requirements analysis)*;

Appendix H entitled *Appropriateness Data Maintenance Tool (functional specification)*;

Appendix I entitled *Product Option Attribute Data Maintenance*;

Appendix J entitled *"SageWalk" and Scene Generation Tool*;

Appendix K entitled *NetSage Product Authoring Tools*;

Appendix L entitled *Product Option Attribute Data Maintenance Tool*;

Appendix M entitled *On the Fractal Nature of Interaction Modeling*;

Appendix N entitled *Overview of SageTalk & the Sage Server*;

Appendix O entitled *NetSage Character Definition (Overview of the Sage Intent Mechanism)*;

Appendix P entitled *Overview of netSage Flash Player*;

Appendix Q entitled *SageWalk Editing Environment (functional specification)*;

Appendix R entitled *SageWalk Editing Environment (use cases)*;

Appendix S entitled *SageWalk Editing Environment (user guide v.1)*;

Appendix T entitled *Interaction Prototyper (user guide v.1)*;

Appendix U entitled *Version Report Skill (functional specification)*;

Appendix V entitled *Site Modeling Skill 1.0 XML Definition*;

Appendix W entitled *Software Design Description, site modeling 1.0*;

Appendix X entitled *Site Modeling Skill 1.0 (functional specification)*;

Appendix Y entitled *Site Modeling Skill 1.0 (architecture specification)*;

Appendix Z entitled *Software Design Description, site modeling skill 1.0, session skill*;

Appendix AA entitled *Software Design Description, site modeling skill 1.0, server skill*;

Appendix BB entitled *Live Help Skill (software design document)*;

Appendix CC entitled *Live Help Skill (functional specification)*;

Appendix DD entitled *Email Skill (functional specification)*;

Appendix EE entitled *Email Skill (software design document)*;

Appendix FF entitled *Project Plan for Prototyper/Harness (sic) Servlets*;

Appendix GG entitled *netSage Server Installation*;

Appendix HH entitled *Version Report Role (functional specification)*;

Appendix II entitled *Self Help Role (functional specification)*;

Appendix JJ entitled *Profiler Role (functional specification)*;

Appendix KK entitled *Live Help Role (functional specification)*;

Appendix LL entitled *Feedback Role (functional specification)*;

Appendix MM entitled *Document Name (functional specification for roles)*;

Appendix NN entitled *Document Name (functional specification)*;

Appendix OO entitled *Document Name (software design document)*;

Appendix PP entitled *SageTalk: Designing a Tool for Designing Successful Web-based Social Agents*;

Appendix QQ entitled *Coding Standards*;

Appendix RR entitled *Overview*;

Appendix SS entitled *Process of Deploying netSage 4.0 and Implementing Client-Specific 4.0 Product*;

Appendix TT entitled *Introduction*;

Appendix UU entitled *Role Charts*; and

Appendix VV entitled *Sage Intent Tree*.